

REMARKS

Claims 41 and 46-64 are active. These claims find support in the original claims and specification as follows: Claim 41 (claim 1), Claims 46-47 (page 7, line 2 and page 8, line 1), Claim 48 (pages 2-3, page 10, line 18), Claims 49-51 (page 3, lines 14-16), Claims 52-55 (page 3, line 20 *ff.*), Claim 56 (page 7, line 11), Claim 57 (page 8, line 5; Fig. 2), Claim 58 (page 4), Claim 59 (page 3, lines 3-5), Claims 60-61 (page 1); Claim 62 (claim 1, page 6, line 22), Claims 63-64 (page 7, line 2 and page 8, line 1). Accordingly, the Applicants do not believe that any new matter has been introduced. Favorable consideration of this amendment and allowance of this application are respectfully requested.

The Applicants thank Examiners Jackson and Bianco for the courteous and helpful interview of April 1, 2008. Revision of the independent claim to further describe the structural elements of the invention was discussed. The Applicants believe that it was agreed that McDevitt, col. 11, lines 14-18 discloses eucalyptus pulp and not an essential plant oil. Whether a “sulfonated glycol” would be considered a plant oil was discussed. Documents, not yet applied as prior art, within the field of transdermal patches were discussed, including Kwiatek, U.S. Patent No. 5,629,014.

The Applicants note that Kwiatek, claim 1, part (b) explicitly requires a backing layer that prevents release of an active ingredient. On the other hand, the invention requires a configuration in which a volatile component is drawn out and released. Moreover, unlike the three- or more-layered devices of Kundel or Nielsen, the invention requires only two layers: the gel and the flexible porous support, but may have an optional removable protective layer.

Rejection—35 U.S.C. §103

Claims 41 and 43-45 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kundel, U.S. Patent No. 5,480,717, in view of Nielsen, WO 02/05737, and further in view of McDevitt, et al., U.S. Patent No. 7,012,169.

The products of Kundel contain an intermediate layer of adhesive between the hydrogel and the substrate. In the invention, the hydrogel is applied directly to the substrate. Therefore, this patent does not disclose or suggest the invention.

While present claim 41 employs the word “comprising” it also specifically requires that the “layer of gel which is applied directly to one surface of said flat flexible porous support”, a feature that is absent from Kundel. Moreover, new claim 62 employs the transitional claim language “consisting of” which would exclude any intervening layer. As previously discussed, Kundel was cited as disclosing hydrogel laminate bandages and composites (col. 6, lines 14-17). The term “composite” appears to refer to an “adhesive-coated substrate” coated with a polymer solution which is polymerized by ionizing radiation thus forming a hydrogel laminate which may be “used to form bandages”, see col. 5, lines 27-31 and 46, and col. 6, lines 14-15. However, Kundel uses a layer of adhesive between the hydrogel and the substrate. This distinguishes the Kundel products from those of the invention, since even if Kundel used a porous support, the adhesive would cover the porous support and interfere with the breathability of the resulting pad.

Nielsen (page 5, line 22-page 6, line 2) was cited as teaching applying a hydrogel directly to a porous support with no intervening adhesive to obtain the highest permeability. Nielsen is directed to wound dressings comprising a backing layer, an intermediate absorbent layer, and a skin facing layer (such as a hydrogel or other skin-friendly material, page 9, lines 3-4). It does not disclose a dressing containing a hydrogel layer applied directly to a flexible porous support as required by the present claims. Rather, Nielsen employs absorbent layers

for the uptake of body fluids, especially wound exudate, so as to enable the wound dressing to keep a constant moist environment over the wound site and at the same time avoiding maceration of the skin surrounding the wound (see lines 7-11 of- page 1 of Nielsen). At best, Nielsen only indicates that adhesive should not be applied between a backing layer and an absorbent layer, but does not address the issue of adhesive between a substrate and a hydrogel layer.

Neither Nielsen, nor Kundel suggests omitting an adhesive between a hydrogel layer and a substrate. Moreover, neither document provides any motivation for omitting an adhesive in a hydrogel product (e.g., directly applying the gel to the porous support), or any reasonable expectation of success that an adhesive could be omitted from a hydrogel product without compromising the structural integrity of the resulting product.

Kundel does not suggest the present invention, because it provides no suggestion to select a porous substrate suitable for producing a breathable pad. Kundel, col. 6, lines 14-17 indicates that “hydrogel laminates. . .may be used to form bandages”, but does not disclose or suggest the “breathable pads” required by the present claims. Moreover, this section indicates that such configurations are preferably coated with a thermoplastic film with adhesive, thus teaching away from a breathable pad.

Col. 4, lines 64 *ff.* also teach away from the breathable pads of the invention:

“suitable substrates included woven or nonwoven fabrics, plastic films, and laminates of woven or nonwoven fabrics and plastic films. It is generally preferred that the substrate include a **moisture-impermeable thermoplastic film** (emphasis added)”.

While it is conceivable that some of the substrates described by Kundel may be porous, there is no suggestion in Kundel to select a porous support to provide a breathable pad as required by the invention. In fact, Kundel suggests just the opposite: that a moisture impermeable thermoplastic film be used and that a layer of adhesive be

applied, which Nielsen indicates would compromise permeability (Nielsen, page 5, lines 22-23).

As noted in the rejection, neither Kundel nor Nielsen disclose the volatile plant oils required by the present claims. McDevitt was cited as disclosing this element, but col. 11, lines 14-18 of this patent only refer to eucalyptus pulp and not to volatile oils. Moreover, while “sulfonated glycol” (col. 11, lines 35-36 of McDevitt) may be component of a plant oil or a plant extract, it is not a volatile compound. Indeed, this compound is simply a wetting agent as disclosed by col. 11, lines 32-33 of McDevitt. Claims 41 and 62 each require a “volatile”

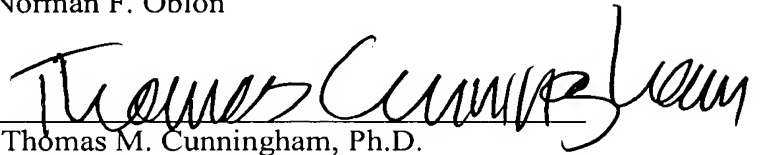
Accordingly, since the prior art does not disclose or suggest the breathable pads of the invention, nor the incorporation of volatile plant oils or aromatic extracts into such a breathable pad, the Applicants respectfully request that this rejection be withdrawn.

Conclusion

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. An early notification of such allowance is earnestly requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

A handwritten signature in black ink, appearing to read "Thomas M. Cunningham". The signature is written in a cursive, flowing style with a horizontal line underneath it.

Thomas M. Cunningham, Ph.D.
Registration No. 45,394

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)